

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015752**Date Inspected:** 13-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

**Bay 10**

This QA Inspector randomly observed the following work in progress in Bay 10:

Air-carbon-arc gouging of a repair as a result of ZPMC ultrasonic testing (UT) of weld joint SSD1-SPSA5-6-2B at Y location 130 located on south tower, lift 5, internal splice plate. The gouge, at the time of observance appeared to be approximately 20mm deep. ZPMC CWI Gao Zhi Chun (QC1) informed this QA Inspector that this was a first repair and presented ZPMC Welding Repair Report WRR3059 with attached ZPMC UT report. The work observed appeared to be in conformance with the above noted documents. See photos below.

SMAW tack welding of temporary alignment plate to outside of PCMK SSD1-TL5, skin E and to skin E connection plate near skin D corner. Welder was identified as 040400. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was Sun Tian Liang (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-4112.

**Bay 11**

This QA Inspector randomly observed no apparent welding related work being performed in Bay 11.

OBG Trial Assembly Area

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of temporary alignment plates located outside at PCMK 9DE/9EE, bottom plate to bottom plate transverse joint. Welder was identified as 053609. QC was identified as ZPMC CWI An Qing Xiang (QC2). Welding variables recorded by QC2 appeared to comply with WPS-B-T-2134. Also at this location and appearing to be monitoring the welding operation was ABF Representative Kelvin Cheung.

FCAW welding of weld joints CA063-006 located outside on PCMK 9CE and SEG056-049 located on 9DE, both edge plate to deck plate holdback welds at the 9CE/9DE transverse joint. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was Wang Li Yang (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-2234-TC-U4b-F. Also at this location and appearing to be monitoring the welding operation was ABF Representative Kelvin Cheung.

FCAW welding of temporary alignment plates located outside at PCMK 9DE/9EE, deck plate to deck plate transverse joint. Welder was identified as 230066. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was Wang Li Yang (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-2132. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Kelvin Cheung and Wang Zhong Yuan.

FCAW welding of temporary alignment plates located outside at PCMK 9DE/9EE, edge plate to edge plate transverse joint, north (crossbeam) side. Welder was identified as 051246. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was Wang Li Yang (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-2132. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Kelvin Cheung and Wang Zhong Yuan.

FCAW welding of temporary alignment plates located outside at PCMK 9DE/9EE, edge plate to edge plate transverse joint, south (bikepath) side. Welder was identified as 053742. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was Wang Li Yang (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-2132. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Kelvin Cheung and Wang Zhong Yuan.

### Heavy Dock

This QA Inspector randomly observed the following work being performed on the Heavy Dock:

This QA Inspector observed no apparent work was being performed on the Heavy Dock. All 4 tower lifts 2 were erect with all 4 tower lifts 3 attached above, respectively. No ZPMC QC nor ABF representative presence was observed anywhere on the Heavy Dock. The lifts 2/3 worker access tower elevator was unmanned and was dark as were the local ABF and ZPMC QC offices. OBG segment 7E was sitting on stanchions mid-dock. Crossbeams 7, 8, 9, and 10 were still on the ship moored to the end of the Heavy Dock, as before.

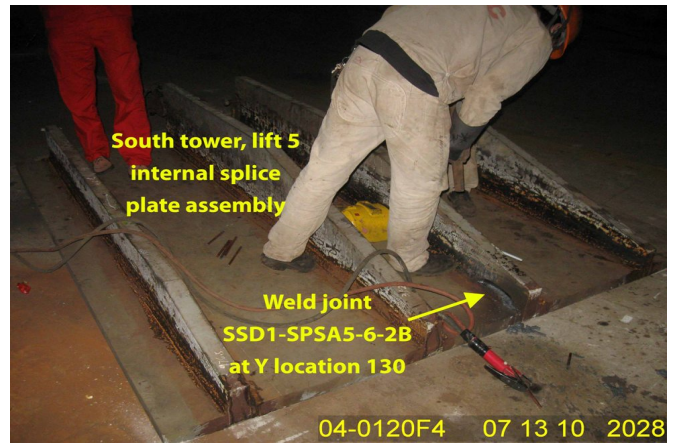
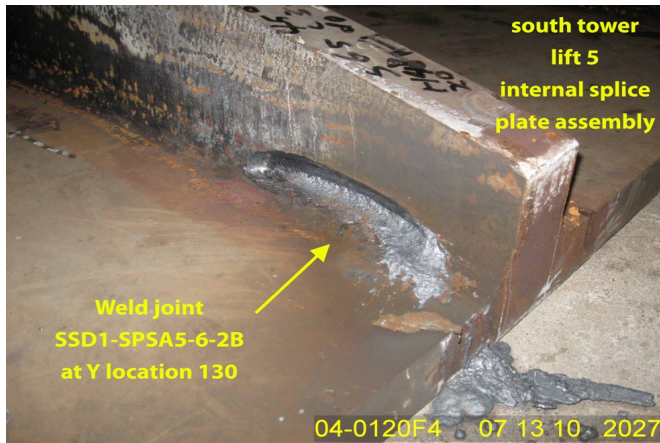
---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Goulet, George

Quality Assurance Inspector

---

**Reviewed By:** Dawson, Paul

QA Reviewer